BID ISSUE

Repair of Cooling Towers, Phase I and Phase II

NASA Glenn Research Center
Facilities Division
Project Management Branch

Project Number
Phase 1 – ID No. 13572
Phase 2 – ID No. 14901

Revision 04

A. GENERAL REQUIREMENTS

1. Summary of Work

The subject work is located at the various Cooling Towers at Lewis Field and Plum Brook Station. The following cooling tower systems are within the project scope: Cooling Towers No. 1, 3, 4, 5 and 6 at Lewis Field and the Space Power Facility Cooling Towers at Plum Brook Station. The overall scope is further detailed in the provided Design documentation which is comprised of the Project Specifications and Project Drawings.

Contractor shall furnish all personnel, labor, equipment, material, tools, supplies, supervision, management, and services, except as may be expressly set forth as Government furnished, and otherwise do all things necessary to or incident to providing for the subject work at both NASA Glenn Research Center's Lewis Field located at 21000 Brookpark Road, Cleveland, Ohio, 44135 and Plum Brook Station located at 6100 Columbus Ave., Sandusky, Ohio, 44870.

Review any further requirements detailed in the contract documents.

2. Performance

All work for Lewis Field exercised under this proposal shall be completed during the Center's Annual Shutdown. The Annual Shutdown comprises a seven (7) week outage period for field time starting typically in June and ending in July of a given calendar year. For the 2012 Shutdown, the field work period has been defined as July 9, 2012 through August 24, 2012.

The cooling towers in order of priority at Lewis Field are CT No. 1 & 4, then CT No. 5 then CT No. 3 & 6.

Contractor shall be responsible for clean-up and proper disposal of any residuals remaining in the Cooling Tower Basins and/or Piping after the system draining is completed by NASA at Lewis Field to facilitate the scope.

Note the basins of CT No. 3 & 6 are not presently planned to be drained for the 2012 outage.

All work for Plum Brook Station exercised under this proposal shall be completed such that the existing cooling tower water system remains functional to the maximum extent possible until such time that the new cooling tower water system can be connected and made functional. The switchover outage shall be scheduled by the Government.

Note, option work may be requested to be performed at any of the Cooling Towers during the Shutdown period if Center activities permit.

In addition, cooling tower work from Phase 1 has been previously awarded and scheduled in CY 2012. The bidders shall coordinate with the previously awarded contractor so as to allow them to complete their contract in full.

All field work initiated at the beginning of the established outage period must be fully completed such that the impacted system can be returned to full operation at the end of the provided outage period.

Premium time defined as two eight (8) hour shifts and weekends outside a normal eight (8) hour work day from 7:00 am to 3:30 pm are anticipated to be required to perform the presented scope items. The Contractor shall document the extent to which premium time including weekends will be utilized in their schedule as part of their proposal.

In addition to premium labor time, the contractor shall include services and equipment that will permit project scope to be performed in the absence of daylight.

B. PROJECT REQUIREMENTS

1. The information contained within the provided contract documents applies to all subject work.

2. All specifications provided shall be adhered to in the performance of all subject work.

   In cases where one specification section to another specification section differs, the more rigorous provision shall be followed unless noted otherwise by the NASA Project Team.

3. BID WORK

   Contractor shall propose on the following for each Cooling Tower Water System.

   Cooling Tower No. 1

   BASE

   Replace eight (8) actuated riser valves provided as Government Furnished Equipment (GFE)

   a. Include abatement of pipe gaskets and rework of power & control wiring as needed

   Replace six (6) actuated isolation valves and two (2) manual valves provided as GFE in Buildings 5, 37 and 38

   b. Building 5
      20" Limitorque Operated Valves, ID # WS-0806 & WP-0805
      16" Manually Operated Valves, ID # WS-1001 & WP-1002

   c. Building 37
      30" Limitorque Operated Valves, ID # WS-0804 & WP-0803

   d. Building 38
      16" Limitorque Operated Valves, ID # WS-0808 & WP-0807

   e. Include abatement of asbestos pipe gaskets, rework of power & control wiring and rework of pipe spools as needed

   Replace Fan Vibration Switches (total of 18) and associated electrical components, conduit and wiring.

   Replace Gearboxes at Cooling Tower No. 1 and include replace of extension lines for gearbox oil filtering (see detail SK-COF14901-CT1-1 for oil filtering lines)

   Repair Structural members, Fan components and Concrete Basin

   Replace the valves (ID # WR-2133 & WP-2139) on the existing equalizer line.
   Note that the rework of the equalizer line is a Not In Scope item.

   Replace Fill material and drift eliminators

OPTIONS

1. Provide Pressure Wash, Cleaning and Epoxy Coating to Basin

2. Clean, Prime and Paint All Steel Frames, Motors, Motor Bases and all other applicable Misc Components and/or Items.

3. Power wash, repair and seal exterior siding

4. Replace Valve Pit Covers in kind at Cooling Tower No. 1

5. Replace all fan disconnect panels

    a. Provide and install an electrical disconnect panel, heavy-duty, 60A, 600V, 3P, NEMA 4X, Cutler-Hammer Model DH362UWK with interlock, Cutler-Hammer Model DS200EK1 or approved equal

    b. Contractor shall route cable and conduit to the DCS panel located in the Basement of Building 9. Coil cable at DCS panel for terminations to be performed by others. As applicable, the disconnect panel interlock cable can share the fan vibration switch cable conduit and routing.

Cooling Tower No. 4

BASE

Replace decking at Cooling Tower No. 4

Replace Fan Vibration Switches (total of 4) and associated electrical components, conduit and wiring

Repair Structural members and Concrete Basin

OPTIONS

1. Provide Pressure Wash, Cleaning and Epoxy Coating to Basin

2. Clean, Prime and Paint All Steel Frames, Motors, Motor Bases and all other applicable Misc Components and/or Items.

3. Repair and seal exterior siding

4. Install extension lines for gearbox oil filtering (similar to Cooling Tower No. 1)

Cooling Tower No. 5

BASE

Replace Fan Vibration Switches (total of 14) and associated electrical components, conduit and wiring

Replace seven (7) actuated riser valves

a. Include abatement of pipe gaskets and rework of power & control wiring as needed

Repair Structural members

OPTIONS

1. Provide Pressure Wash, Cleaning and Epoxy Coating to Basin

2. Replace extension lines for gearbox oil filtering (similar to Cooling Tower No. 1)

3. Provide mechanical and electrical inspection and testing services for three (3) existing Wheeler-Economy Pumps and 700 HP Ideal Motors known as Pump A, B and C in Building 94. A written report of all findings and potential repairs with itemized costs shall be provided to NASA.

Cooling Tower Space Power Facility (SPF)

BASE

Install the scope (notated as Base or Bid Option # 1 - 2 Cell) of the SPF Cooling Tower system in its entirety.

OPTION

1. Provide Cooling Tower Cell # 3 and associated components (notated as Bid Option # 2) and integrate into the Base / Bid Option # 1 installation

Cooling Tower No. 3

OPTIONS

1. Replace Fan Vibration Switches (total of 10) and associated electrical components, conduit and wiring

2. Repair Structural members

3. Replace Fill material and Drift eliminators

4. Repair top decking, deck supports, internal walkways, stairs, hatches and doors of Cooling Tower

5. Clean, Prime and Paint All Steel Frames, Motors, Motor Bases and all other applicable Misc Components and/or Items.

6. Power Wash, Repair and seal exterior siding

Cooling Tower No. 6

OPTIONS

1. Replace Fan Vibration Switches (total of 14) and associated electrical components, conduit and wiring

2. Repair Structural members

3. Repair top decking, deck supports, internal walkways, stairs, hatches and doors of Cooling Tower

4. Clean, Prime and Paint All Steel Frames, Motors, Motor Bases and all other applicable Misc Components and/or Items.

5. Power Wash, repair and seal exterior siding